

**A TELEVISION
ADVERTISING AND CHILD
OBESITY: Characteristics
and literature review
regarding the Brazilian
context**

A PUBLICIDADE NA TELEVISÃO E A
OBESIDADE INFANTIL:
Características e revisão de
literatura no contexto brasileiro

LA PUBLICIDAD EN LA TELEVISIÓN
Y LA OBESIDAD INFANTIL:
Características y revisión de la
literatura en el contexto brasileño

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ABSTRACT

Child obesity is a social problem in Brazil and all over the world. It brings serious risks to people's health and, although public administration provides expenses for treatments, leads the treatment of diseases derived from child obesity, which aggravates in adult age, to superlative expenses. Food advertising commonly takes part of the blame for the bad eating habits of

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children and, consequently, their overweight, due to the idea of them inducing the consumption of highly caloric products. This study aims to deepen the discussion about the relationship between television advertisements and child obesity in the Brazilian context. It was selected the CAPES platform as the main source for research, once it is the platform of highest representability of Brazilian researchers. Finally, under the light of literature review, one can notice the demystification of advertising as directly responsible for child obesity. It is also noticeable the emerging interest in mediatization as a cultural matter.

KEYWORDS: Child obesity; television; publicity for children; mediatization.

RESUMO

A obesidade infantil é um problema social no Brasil e em todo mundo, com sérios riscos à saúde das pessoas e com gastos superlativos disponibilizados pelo poder público no tratamento de doenças oriundas da obesidade infantil, com agravamento na idade adulta. Parte da culpa pela má alimentação das crianças e, conseqüente, do excesso de peso, costuma ser atribuída à publicidade de alimentos, por induzi-las à ingestão de produtos altamente calóricos. Este estudo propõe o aprofundamento da discussão da relação da publicidade, veiculada na televisão, com a obesidade infantil, no contexto brasileiro. Selecionou-se a plataforma CAPES como fonte principal para a pesquisa, por se tratar da plataforma com maior representatividade de pesquisadores brasileiros. Por fim, à luz da revisão da literatura, percebe-se a desmistificação da publicidade como responsável direta pela obesidade infantil. Nota-se também o interesse emergente, sobre a mediatização como uma questão cultural.

PALAVRAS-CHAVE: Obesidade infantil; televisão; publicidade infantil; mediatização.

RESUMEN

La obesidad infantil es un problema social en Brasil y en todo el mundo, con graves riesgos para la salud y el gasto superlativos humana proporcionada por el gobierno en el tratamiento de enfermedades que se originan en la obesidad infantil, con un empeoramiento en la edad adulta. Parte de la culpa de la mala nutrición de los niños y, en consecuencia, el sobrepeso, por lo general atribuido a la publicidad de alimentos, mediante la inducción a la ingesta de productos con alto contenido calórico. Este estudio propone la discusión adicional de la relación de la emisión de publicidad en la televisión, con la obesidad infantil en el contexto brasileño. Seleccionado para la plataforma de la CAPES como la principal fuente para la investigación, ya que es la plataforma más representativa de los investigadores brasileños. Por último, a la luz de la revisión de la literatura, vemos la desmitificación de la publicidad como el responsable directo de la obesidad infantil. También se observa el interés emergente en la cobertura de los medios como una cuestión cultural.

PALABRAS CLAVE: Obesidad infantil; televisión; la publicidad infantil; mediatización.

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Introduction

The present article proposes a literature review aiming to deepen the discussion about the influence of television communication as one of the factors that favor the increase of child obesity. We know that many are the strategies used by the media to “talk” to children, such as interactive games, comic book stories and others, but the television still is the media which receives the highest publicity investment. The purpose of this research is to deepen the study on the theme regarding the influence of advertisements aired on TV in relation to the stimuli of food consumption when confronted with the high rate of Brazilian child obesity. For such objective, this work will go through selected published articles on the subject. According to Ibope Média – 2015, the TV is the media that most enters Brazilian homes. The investment in television (free and paid) in Brazil in 2015 was calculated around R\$ 42 billion, representing more than all other medias put together, justifying the choice of this media for the present study. The superlative sum of financial resources invested by companies in television advertising is understandable regarding the fact that it is the most used among the communication means. A research was carried in 2014 by the Brazilian Institute of Public Opinion and Statistics (IBOPE) aiming to know the media consumption habits of the Brazilian population. It listened to 18.312 people in 848 municipalities, performed by 200 researchers and a questioner of 75 questions, resulting in the recognition that 65% of the Brazilians watch television every day, proving that this is the most consumed media in the country.

Obesity costs R\$ 110 billion to Brazil. Once the Brazilian Gross Domestic Product (GDP) in 2013 was R\$ 4,8 trillion, the expenses in regard of obesity represent around 2,4% of the GDP, according to an international study

conducted by McKinsey Global Institute. In this country obesity kills more than smoking and it is the third item of a list of public health problems that most way on the economy, such as violent deaths and alcohol. The information is found in an article released by G1 Portal in November 20th of 2014⁵. A similar situation is other realities other than Brazil. Around the world 2,8% of all riches are spent in coping with obesity, about R\$ 5,2 trillion. The worldwide cost of obesity is nearly the same as that of diseases derived of tobacco or losses resulted in consequence of armed conflicts. It is also as relevant as alcoholism and climate changes.

Many are the researches that seek to relate child nourishment with the influence of food advertising destined to kids in the period they stay in front of TV in Brazil, but that does not mean that there is a direct influence. It is for this reason that we propose an analysis that observes the relationship between advertising and child obesity parting from a literature review that will make possible to explain connections between advertising and child obesity in the Brazilian context. However, before we get into the format of this survey we will aim to see the matter of obesity around the world. In every way it becomes important to study the communicative mediation of advertising, demystifying its direct influence and locating its power of presence in culture which corroborates for child obesity.

Childhood and Obesity

The period called childhood is considered from eighteen months to twelve years old. From birth to one month of life one is called a newborn, and

⁵ Disponível em: <<http://g1.globo.com/ciencia-e-saude/noticia/2014/11/obesidade-ja-custa-ao-brasil-24-do-pib-diz-estudo.html>>.

from the second month to the eighteenth month it is called baby. According to the World Health Organization (WHO) a person is considered obese when its mass body index is superior to 30 kg/m^2 . This number is obtained by dividing someone's weight by the square number of one's height (YANOWSKI, 2014). An obese childhood can occur due to many reasons: from heredity to sedentary lifestyle, from modern life to idleness and lack of exercise, maybe even the relationship between food advertising and the media. According to Trindade (2012) the persuasive and seductive speech of publicity makes possible to propitiate fruition and even to enrich the thinking of individuals. This happens through arguments and very sophisticated poetical constructions, because in its fictional aspect advertising is free to build its real effects. In addition to the excessive time period spent in front of TV we can number diverse life habits that transform themselves in cultural factors, which favor the increase of child obesity rates, such as the habit of eating merely for fun (BAADER, 2015).

Modern life, specially in big cities, demands that parents spend a long time out of their home, leaving children opened to prostrate themselves to television as the only option of leisure, once the streets are no longer a safe place for children's playtime. While they watch TV, they are likely to consume diverse types of food as they watch their favorite shows. Idleness and lack of exercise are a result of a cultural process that installed itself in the Brazilian family due to the reasons spoke of above.

In the United States show themselves worried about how fast obesity has increased in the last decades, specially concerning kids and young adults. The country spends about 150 billion dollars each year in treatments of diseases related to obesity. The researches about consumption and family wages of food before focused in economical conceptions now adopted new perspectives and

gained space in marketing discussions. In this sense, considering consumption as a way of expressing values, it is possible to verify the celebration of its relationship with society, also taking notice of cultural and ideological aspects of consumption should be studied LEÃO, MELLO & FREITAS, 2011. In early childhood the possibilities of consumption are very limited, considering their restricted cognitive aptitudes and their smaller universe, in which the interest centers are not so varied and also their lack of financial resources. Although, children are a constantly aimed target of food product companies.

The study published in the magazine *Public Health Nutrition* called “*The effects of television and Internet food advertising on parent and children*” shows that there are growing worries considering that food advertising has been contributing for the epidemic obesity which has affected negatively individuals and societies. Hence, one can foresee that health care will run out the health budgets of nations (PETTIGREW, SIMONE, TARABASHKINA, ROBERTS, QUESTER, CHAPMAN, MILLER & CAROLINE, 2013). In most of the countries children’s life is very similar, in other words this means their routine is built as part of the day at school, too much time at home and little playing outdoors. UNICEF data – “*United Nations Children’s Fund*”- point to obesity growth in children from 0 to 5 years in the last 25 years around the world. See the figure below [with the purpose of not altering the original graphic, it is placed in its original language, in Portuguese; the translation and explanation is found in reference below]:

INCIDÊNCIA DE OBESIDADE EM CRIANÇAS DE 0 A 5 ANOS NO MUNDO

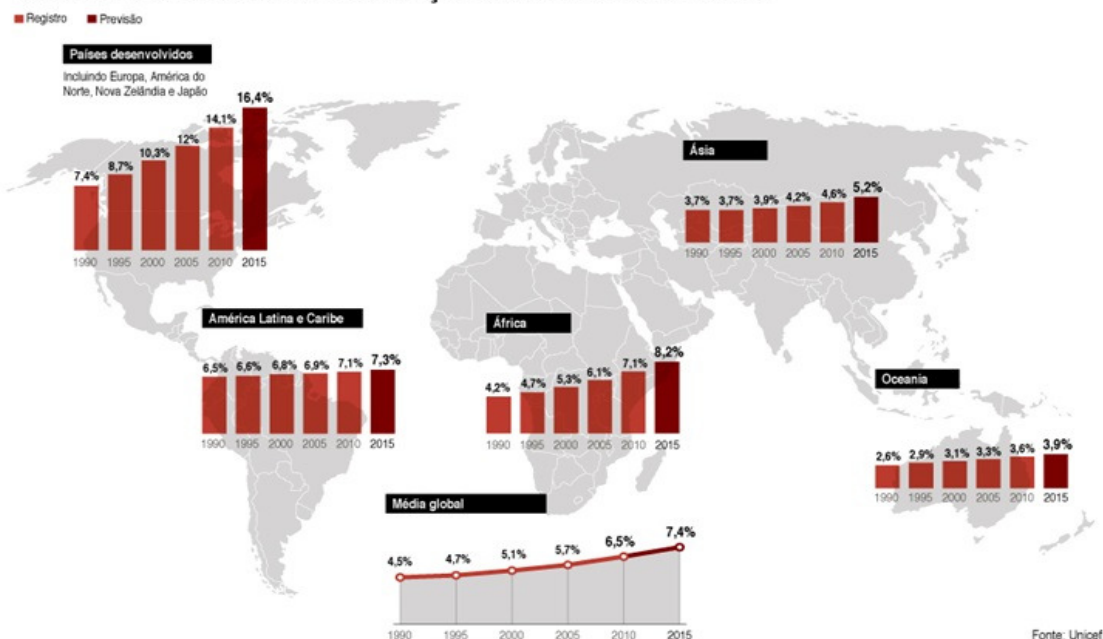


Figure 1: Incidence of obesity in children between 0 to 5 years old around the world⁶ Reference: Medidas para combater a obesidade infantil – Brasil Debate⁷

Child obesity in Brazil

In Brazil the obesity is increasing among the population in general, but there is a special concern over kids and young adults, reason for the growing interest of researchers and companies on the theme “consumption and children”. According to Claro, Menconi and Loreto (2012), this group gained importance in the last decades and the companies related to this segment have

⁶ Map of obesity incidence in children between 0 to 5 years around the world. The lighter color represents registered data on obese children, while the number related to year 2015 was a prevision. The graphic is divided in Developed countries (North America, Europe, New Zealand and Japan); Latin America and Caribbean; Africa; Asia; and Oceania. There is also a global average, along the 25 years referred to in the graphic study, which began in 1980 and ended in 2015.

⁷ Available in: <http://brasildebate.com.br/medidas-para-combater-a-obesidade-infantil/>.

been investing more in customizing products addressed to the needs of this target group. Child obesity in Brazil grows each day and diseases caused by obesity in children appear more strongly during the adult years. It is estimated that the country spends annually R\$ 25.817.762,98 on treatments of diseases related to obesity (MOZZOCCANTE, MORAES & CAMPBELL, 2012).

Considering its regions, the Southeast region of Brazil is the one with highest concentration of overweight children, followed by Midwest and South, while North and Northeast have the lowest rates in the country. A study carried by IBGE in 2015 detected that obesity is more frequent in boys. The following graphic gives more details about the research.

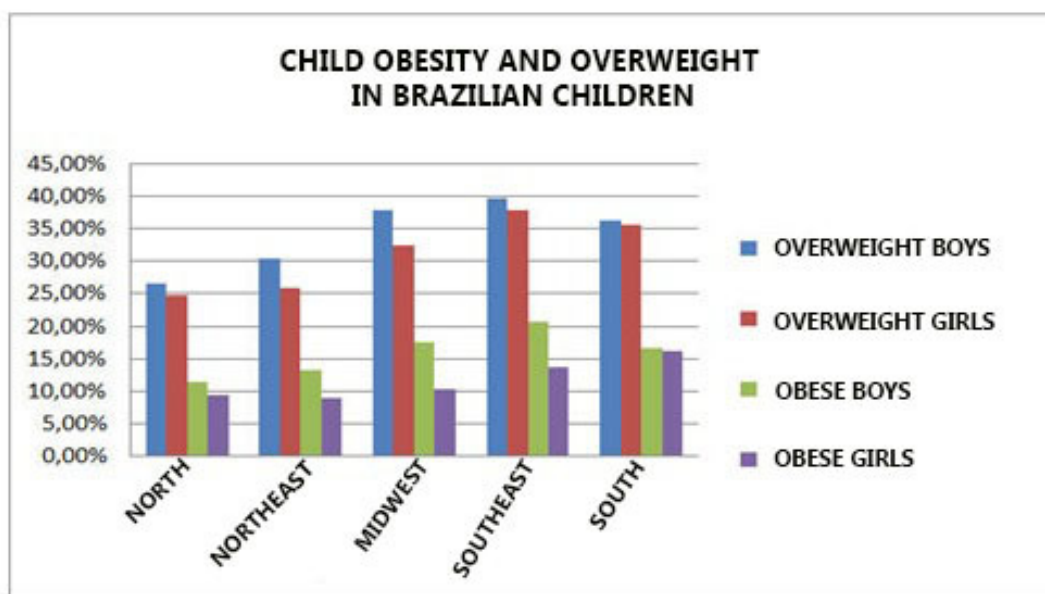


Figure 2: Child obesity and overweight in Brazilian children
Reference: Elaborated by author.

Child obesity and the contemporary age

Contemporary age is marked by factors such as urbanization, changes in the relationship between time and space, growth of industrialization, multiple attributions of women – who still has a central role in the care of health and food in the family –, marketing, and others. As the eating habits have been molded to fit the accelerated rhythm of our daily routine, children are being exposed earlier to this kind of food also due to the great number of advertisements which have influenced negatively their food choices.

Thus, through this media, they can formulate an inadequate conception of what is healthy food. Many are the times when kids interact with television as one like them (ALMEIDA, 2002).

In this sense, one can say that communication media has a significant impact on people's life. However, this does not let us affirm specifically that the type of vehicle or media used is responsible for child obesity.

A survey performed in 2014 by Golden, Henessy, Dean and Hollywood, shows that the knowledge of the food brands is a previous factor to the buying request of the kids. The research also showed that the children group between 4 and 6 years old chooses food and drink almost naturally after having contact with the product's publicity in television.

Techniques and Proceedings of Data Collecting

The study is a retrospective descriptive study performed by the survey of articles, dissertations and thesis available in the platforms *Scielo*, *Google Science* and CAPES Portal of periodicals – Education and Culture Ministry (MEC). Among the platforms consulted CAPES was chosen as our source because the aim of this goal is to contemplate the Brazilian context. For having such

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research done, each keyword was used isolated and we found 1.131 publications in the period of 2005 to 2015. Inside this total it was verified, 472 publications with the term “television”, 342 publications carrying the term “child obesity”, 33 publications with the term “publicity for children” and 61 publications having written the term “mediatization”.

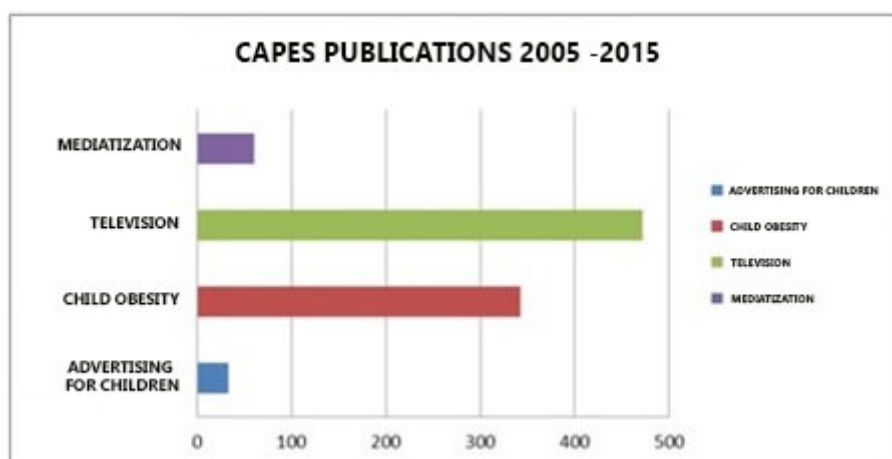


Figure 3: CAPES publications 2005-2015
Reference: Elaborated by author.

After this survey, the search was narrowed to publications that have at least two of the keywords and with a textual context that would be similar to the proposal of deepening the discussion about the influence of publicity in child obesity. With all this parameters, the number was reduced to 34 publications by CAPES, published in the period between 2005 and 2015, and among those 24 were selected following the criteria of having a similar line of subject and interest of the researcher.

The keywords used for the search were: child obesity, television, publicity for children, and mediatization. The graphic below registers the theoretical scenario:

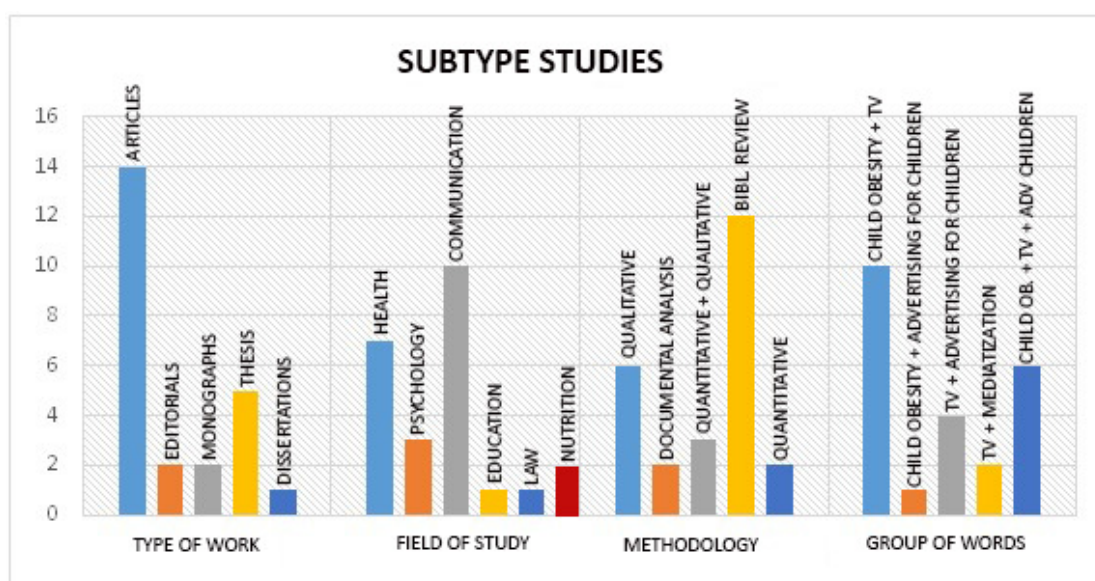


Figure 4: Graphic of the Subtypes Study
Reference: Elaborated by author.

The next step of the research investigated the “subtypes” of studies parting from the keywords, aiming to list publications that used the terms “**media and childhood**” along with “child obesity”. Finally, a survey of works will be presented, which correlate child obesity with media and childhood to enrich the reflection on the subject. It should be highlighted that there is no overlapping on the investigations, but an idea of complementing the survey.

Discussion

The discussion about the theme is polemic as much as it is intense, having many authors defending antagonistic and complementary positions depending on the result of the research. However, the researches which include mediatization as a process that intermediates the cultural relationship of men and the media deserve closer attention. Hjavard (2011)

affirms that media has been studied in society separately from culture, and such attitude might cause some trouble to the understanding of its messages.

Studies about the advertising message gains one more ingredient under the view of authors who defend that mediatization can affect the message intervening greatly in the comprehension between counterparts.

The study developed by Cinira Baader (2015) suggests that the brands of food products for children materialize themselves using the entertainment as a strategy of stimuli to the idea of food ingestion for fun. It also says that children have been a great target of propaganda since they have a considerable influence in the decision of parents's shopping. Thus, companies have been investing in media that aim to create a culture in which the child become the influencer for food product shopping decisions in the family (MENDES, CALADO, MACÊDO, CASSIMIRO & CALAZANS, 2012). According to Vinícius Guimaraes Carneiro (2007), child obesity is mainly caused by the lack of exercising habits combined with the mediatic pattern required by acquaintance groups between kids. In other words, to be accepted in the group of friends it is fundamental to be equaled in the consumption of food. A study carried by Golden, Hennessy, Dean and Hollywood (2014) revealed that the knowledge of food brands comes before the shopping child request for a food product. In her article, Danielle Vieira discusses the ethical matter suggesting that the increase of advertising production for television aimed at children are directly related to the child's condition as a consumer. The author also defends the preservation of principles in the formation of the kid. A research performed in the University of California more than 120 empiric studies about the effects of marketing in food for children were documented, taking us to conclude that food advertising is fairly well successful. On the other hand, the exposition of a child to television

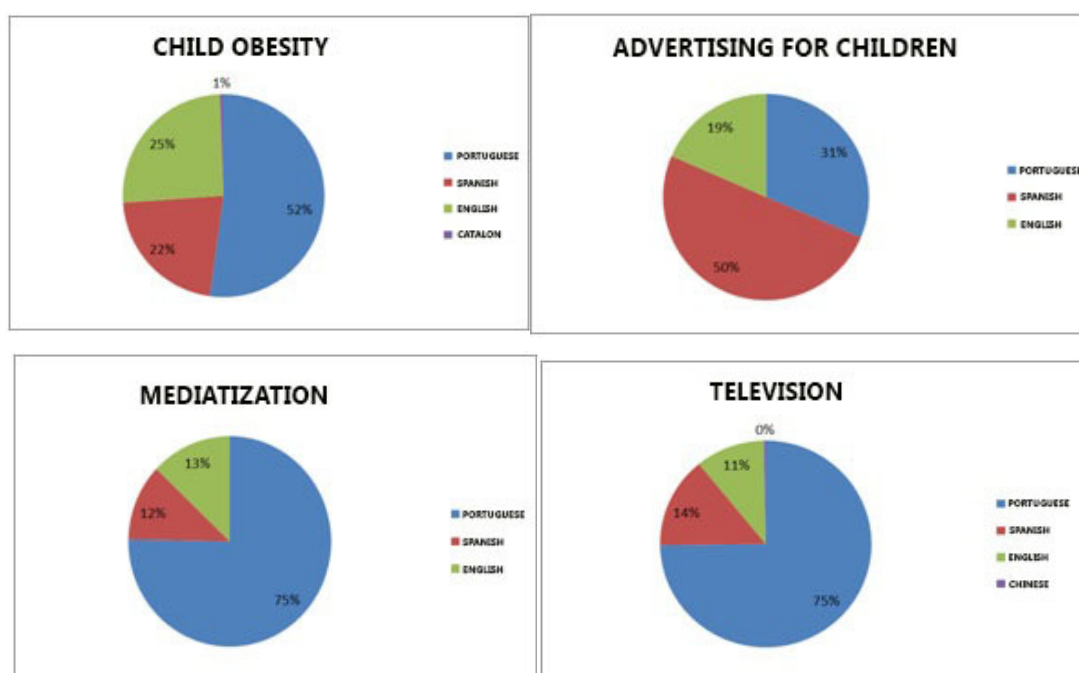
food advertising is positively associated with its preferences and requests of food products which have been promoted (CASTONGUAY, 2014).

To Boyland & Halford (2013), advertising acts combined with other types of mediatization. The use of advertising is frequently combined with other strategies or substituted, when restricted, by another technique of communication and marketing for TV or other media vehicles. In another recent study, it is verified that children are important targets for the marketing of the food industry, because they have the power to influence in family shopping, taking to the conclusion that TV and food publicity influence in the moment of the choice which determines the brand of the food product and the food behavior of children (BOYLAND, HALFORD, 2013). When they watch television, kids and young adults not only have fun, but are also exposed to brand publicities, and this favors the advertiser's work, who creates a need for the product by exaggeratedly complementing it (UEDA, PORTO & VASCONCELOS, 2015).

Baader (2015) held a research having as an object the contexts and processes of mediatization and expressivity of the brands which were materialized by the tendency of entertainment in the combination of food-and-fun. This was done by exploring and analyzing its signic elements and possibilities of senses for the practices of consumption and eating habits of kids in their everyday life. One can note in the discussion a plurality of hypothesis about the relationship between television advertising and child obesity, both in health field and in communication field. In both areas the observance of the lifestyle of the kids is common among the researched issues, especially in relation to television. The authors who compose this literature review are close in their points of view. However they do not present an exact measurement of

the influence of food advertising in child obesity, they do signal it as one of the factors that deserves close attention among the diverse causes of such disease.

Although the investigation focuses the Brazilian context, the subject resounds globally. The graphic below confirms the importance of this theme showing a significant percentage of publications in many languages, what makes us believe that the interest goes beyond geographical borders all over the world and confirms the need of following the investigation of this matter.



Figures 4, 5, 6 and 7: Comparative graphics of articles using the words "child obesity", "advertising for children", "mediatization", "television"
Reference: Elaborated by author.

The discussion presented here showed itself avid to get deeper in themes related to the main theme and to get into works which have similar keywords to those used in the main research. For this purpose, publications about child obesity that carry the terms "**media and childhood**" were also investigated,

considering that such terms are “subtypes” of study parting from the keywords: child obesity, television, publicity for children and mediatization.

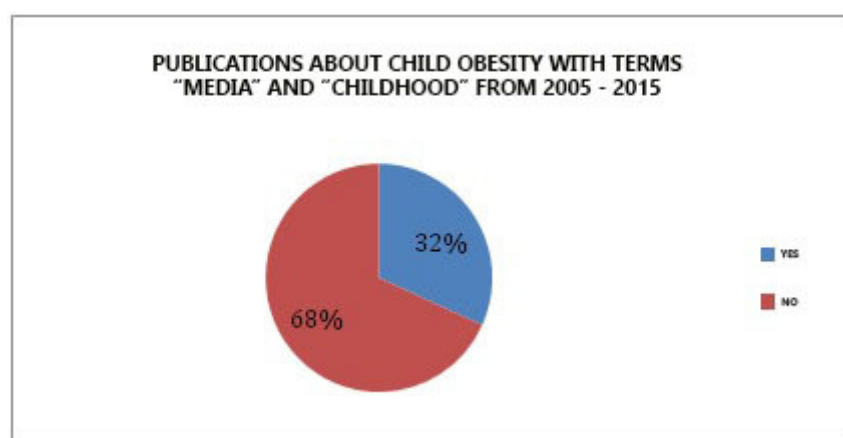


Figure 8: Publications about child obesity including “media” and “childhood” from 2005-2015
Reference: Elaborated by author.

Aiming a detailed and clear understanding about the publications classified as “subtypes” in the works available from 2005 to 2015 that investigate child obesity relating the words “**media and childhood**”, we sought to identify the types of publications following the sequence: type, year of publication, study area, methodology used, grouping of keywords, and languages in which the publication is available. We can notice that the largest part of the publications is formed by articles, followed by thesis; also, the period from 2008 to 2010, followed by the period from 2011 to 2013, are those in which the theme of child obesity grows in terms of academic interest considering the number of publications. It is curious, though, to observe that the area of Education overlaps those of Communication and Health. Regarding the methodology the most used was qualitative research. Another interesting detail is that when added the words “child obesity” and “TV” to the words

“media” and “childhood” the number of articles increases greatly. The graphic below presents this detailed survey.

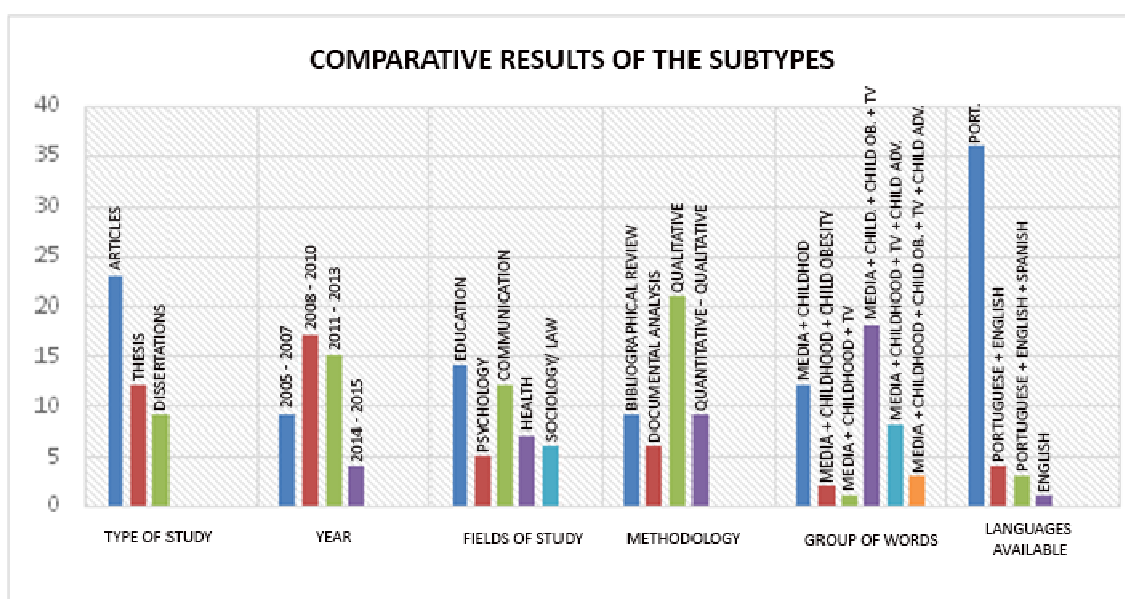


Figure 9: Comparative Graphic of the Subtypes
Reference: Elaborated by author.

It is believed through this methodology one is able to investigate more faithfully the literature review that approaches the central theme of this study, as we aimed to visit the universe of the literary production of related areas without getting too far from the direction that guides the main research which is the “Advertising in television and Child Obesity”. This caution is needed so that there is no confusion in the understanding of the central theme of this study and especially to elevate the level of this discussion and reflection about the mediatization as a cultural process.

Final Considerations

Summarizing all we discusses so far, there are academic studies of diverse areas which show great interest in the investigation about the theme of the influence of advertisements promoted on TV on child obesity. Some specialists from the Health field base their researches in empirical studies to suggest that kids who see more advertisements on TV have a bigger tendency to be obese, for some reasons such as the idle time they spend in front of the television.

However, regarding the studies here presented by the procedural methods previously explained (crossing of keywords), few are the works which target mediatization as a theme, although there is a noticeable growth of interest in the subject. Through the literature review performed in this investigative work we could notice that there is a gap in the studies about child obesity due to the non inclusion of mediatization as a cultural process that affects the population in general, including kids. By the survey of articles, thesis and dissertations it was also possible to notice that the media is not only used as a whim to men. Television, for example, composes the institutions which form society, such as the family. Part of the media influence in the population's lifestyle happens because it is part of a whole that relates itself with other parts of society, such as politics, publicity, religion, demonstrating that the mediatization process influences all other institutions.

It also should be highlighted that besides its content the message carries the impact of the chosen communication media in which it is aired, thus the effect of what was said is partly contextualized or decontextualized in such way. In politics for example, the spectacle in which election disputes look more like a reality show is a phenomena that happens only because of the mediatization.

However, in the point of view of the industry, the problem of obesity is much more connected to the lack of exercise, sedentary lifestyle and parental absence. Many are the studies performed about the subject, and this scenario is understandable due to the importance of the theme in Brazil and around the globe, parting from the assumption that evil goes through multifactor reasons.

This premise holds the possibility of many hypothesis in the investigation of the influences that lead to child obesity. This multiple causes hide important factors such as the cultural process of mediatization, which is mainly carried out by television, at least looking at the Brazilian families and consequently to its kids. As was revealed by the articles searched, the habits related to the relation with television is an intrinsic factor to the everyday of this group with grimaces of cultural factors. There are scarce investigations under this point of view and those identified are still in an initial phase and can be enriched by new researchers which are available to build paths looking through a different way, aiming to reach answers to the causes of child obesity, adding to the performed studies the mediatization as a strand rich in arguments of investigation to demystify the one-sidedness that points publicity as the main cause of child obesity.

On the other hand, considering the influence of publicity over its viewers, perhaps it could be the mainspring in bringing a conscious thought about more healthy habits in the consumption of food by children. However, that is another discussion which can begin a new research work, aiming to find a new role for publicity in eating habits awareness.

References

ALMEIDA, S. S.; NASCIMENTO, P. C.; QUAIOTI, T. C. B. Quantidade e qualidade de produtos alimentícios anunciados na televisão brasileira. **Revista Saúde Pública**; 36(3):353-5, 2002.

BAADER, C. *Alimentação-diversão-nutrição: Por uma Nova Estética no Contexto da Midiatização Publicitária de Alimentos Infantis*. COMUNICON, 2015. Disponível em: <<http://bit.ly/1SOtDBY>>.

BOYLAND, E. J.; HALFORD, J. C.G. Television advertising and branding. Effects on eating behavior and food preferences in children. **Revista Appetite**, v. 62, 1 de março de 2013, p. 236-241, 2013.

CASTONGUAY, J.; KUNKEL, D.; WRIGHT, P.; DUFF, C. Healthy characters? An investigation of marketing practices in children's food advertising. **Journal of Nutrition Educational and Behavior**, v. 45, cap. 6, pp. 571-577, 2013.

CLARO, J. A. C. D. S.; MENCONI, A. T. L.; LORETO, J. R. Consumo infantil: o telefone celular e a criança. **Revista Eletrônica do Mestrado Profissional em Administração da Universidade Potiguar**, São Paulo, v. 5, n. 1, p. 21-32, 2012.

CARNEIRO, V. G. *A influência da mídia na obesidade de crianças e adolescentes*. UNAERP - Universidade de Ribeirão Preto, 2007. Disponível em: <<http://bit.ly/1SpNPcW>>.

HJAVARD, S. Midiatização: teorizando a mídia como agente de mudança social e cultural. **Revista Matrizes**, São Paulo, v. 5, n. 2, 2011.

MAZZOCANTE, R. P.; MORAES, J. F. V. N.; CAMPBELL, C. S. G. Gastos públicos diretos com a obesidade e doenças associadas no Brasil. **Revista de Ciências Médicas**, v. 21, n. 1/6, 2012.

DOI: <http://dx.doi.org/10.20873/uft.2447-4266.2017v3n2p503>

MENDES, T., CALADO, C., MACÊDO, D., CASSIMIRO, E., CALAZANS, J. **Discurso das propagandas de alimentos voltadas para o público infantil**. UNICAP- Universidade Católica de Pernambuco, Recife, 2012. Disponível em: < <http://bit.ly/212rSSD>>.

Leão, A. L. M. S.; Mello, S. C. B.; Freitas, G. K. A. (2011). Usos das marcas para o alinhamento do "eu" (footing) em interações sociais. **Revista Brasileira de Gestão de Negócios**, São Paulo, v. 13, n. 38, p. 61-79.

PETTIGREW, S.; TARABASHKINA, L.; ROBERTS, M.; QUESTER, P.; CHAPMAN, K.; MILLER, C. The effects of television and internet food advertising on parents and children. **Revista Public Health Nutrition**, v. 16, dezembro de 2013, cap. 12, 2013.

TRINDADE, E. **Propaganda, Identidade e Discurso**. Porto Alegre, 2012.

UEDA, M. H., VASCONCELOS, L. A. O efeito da publicidade de alimentos saudáveis e não saudáveis sobre as escolhas alimentares de crianças. **Psicologia: Teoria e Pesquisa**, Brasília, Jan-Mar, v. 30 n. 1, pp. 53-61, 2010.

YANOVSKI, S. Z.; YANOVSKI, J. A. Long-term drug treatment for obesity: a systematic and clinical review. **JAMA: The Journal of the American Medical Association**, v. 311, n. 1, pp. 74-86, 2014.